

Portable version of multichannel  
high voltage cable tester

# TEST-9110-P



Pre-order of a new series of portable testers TEST-9110-P has started

The newest portable version of the TEST-9110 series automated multichannel high-voltage measuring system for checking the quality of wiring and monitoring the electrical parameters of harnesses is now available in a sealed and shockproof portable case with an integrated computer.

**Portable testers  
TEST-9110-P are designed for  
automated measurement and  
control of:**

- **the quality of the electrical installation of harnesses and connections** (checking the continuity of the circuits, checking the connection (short circuit) of the circuit with the rest of the circuits, checking the topology (checking the compliance of the control object with its electrical circuit, represented by the list of electrical circuits and elements);
- **search for installation defects** (breaks, connections with high resistance in places of poor-quality crimping or soldering, incorrectly selected wire cross-section, installation of incorrect components)
- checking the electrical parameters of the control object under the influence of vibration;
- reproduction of voltage and strength of direct and alternating current;
- **measurement of DC and AC voltage;**
- measurement of resistance to direct current;
- measurement of circuit resistance;
- measurement of insulation resistance;
- checking the dielectric strength of the insulation;
- measurement of electrical capacitance (checking the correct cutting of twisted pairs, checking capacitors);
- checking the integrity of the pn junction;
- active measuring probe mode;
- functional check of the controlled object.

The portable testers TEST-9110-P implement the entire arsenal of capabilities of the TEST-9110 series testers and apply new original solutions based on the AXle-0 standard in terms of the meter and high-voltage switch.

The new high-voltage switch VVK-P is manufactured according to the original design, the main element of which is a specialized polarized relay, which have 2 groups of contacts each, allowing to implement 128 channels of measurements by the Kelvin method or 4-wire method.

**This switch design relieves consumers of channel calibration and allows them to work with objects, connection to which requires the presence of long adapter cables (aerospace and railway equipment, ships, etc.).**

The modular measuring-shaper IS-P is made in the AXle-0 standard, built using the same technology as the UPEM. The IC-P is capable of performing precision measurements of resistance (0.001 Ohm with an accuracy of 1%), voltage at the multimeter level with 6.5 digits accuracy, capacitance, inductance (LCR meter function) and generates high voltages (1400VDC / 1000VAC), actually combining functions: multimeter, megohmmeter, punching device and LCR-meter.



## Metrological characteristics:

Description of characteristics	Значение	Limits of permissible relative error, %
DC voltage reproduction range, V	from 0,1 до 1400	$\pm 2\%$
DC voltage measurement range $U_{meas}$ , V	$\pm 700$	no more than 2.4%
AC voltage reproduction range (effective value), V	from 25 до 1000	$\pm 2\%$
Ranges of measurement of the rms value of AC voltage with a frequency of 50 Hz, V	from 1 to 700	$\pm 5\%$
Ranges of reproduction of direct current $I_v$ , mA	from 0,1 to 2000	$\pm 0,5\%$
Measurement range of electrical capacity, nF	from 0,1 to $1 \cdot 10^7$	from 0,1 to $1 \cdot 10^4$ nF incl. 5% from $1 \cdot 10^4$ to $1 \cdot 10^7$ nF incl. 10%
Insulation resistance measurement range $R_{meas.insol}$ , Ohm	from $1 \cdot 10^5$ to $1 \cdot 10^{10}$	in the range from 0.1 to 499 M $\Omega$ no more than 6%, over 499 M $\Omega$ no more than 14%
Range of measurements of electrical resistance to direct current $R_{meas}$ according to the four-wire circuit, Ohm	from $1 \cdot 10^{-3}$ to $1 \cdot 10^7$	$\pm 1\%$

## Specifications:

Number of measuring channels (4-wire measurement method)	128
Integrated high performance Pico-ITX computer with touch screen (15 «TFT 1024x768)	
AFK-9110 software - is the same for all versions of the system	
Built-in self-test and system monitoring	
Overall dimensions, mm, no more: LxWxH	497x500x276
Weight excluding SPTA-O, operational documents, kg, no more	20
Operating conditions:	
- ambient temperature, °C	from 5 to 35
- relative humidity at a temperature of 25 °C, %, no more	80
- atmospheric pressure, kPa	from 84 to 106,7

## Case design features:

Material - isotactic polypropylene  
Protection class - IP 67  
Resistant to salt fog, solar radiation, mold



Reliable  
locking  
mechanism



Hole for  
padlock



Neoprene ring  
in the lid



Automatic  
pressure  
equalization  
valve

